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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
MAHMOUDI, HASSAN

ART UNIT	PAPER NUMBER
2165	

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>24 November 2004</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-41* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-41* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

DOV POPOVICI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Remarks

1. In view of the Appeal Brief filed on 24-November-2004, PROSECUTION IS HEREBY

REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following

two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37

CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a

supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or

other evidence are permitted. See 37 CFR 1.193(b)(2).

2. Claims 1-41 are presently pending in the application.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

4. Claims 1-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over <u>Robertson et al</u>

(U.S. patent No. 6,216,123) in view of <u>Emens et al</u> (U.S. patent No. 6,295,559.)

As to claim 1, <u>Robertson et al</u> teaches a method (see Abstract) of identifying semantic

units (see column 2, lines 58-63 and see column 18, lines 19-28) within a search query (see

Abstract, and see column 18, lines 19-20, where a "search query" is read on "search

operation") comprising:

identifying documents relating to the query (see column 3, lines 15-24) by comparing

search terms in the query (see column 14, lines 9-24, where "comparing" is read on

"documents that match a search request") to an index of a corpus (see column 10, lines 47-56

and see column 20, lines 21-30);

generating a plurality of multiword substrings from the query (see column 4, line 63

through column 5, line 5, see column 8, lines 12-23) in which each of the substrings includes

at least two words (see column 2, lines 52-56 and see column 13, lines 15-21); and

calculating, for each of the generated substrings, a value that corresponds to a comparison

between one or more of the identified documents and the generated substrings (see column

14, lines 9-64, where "calculating the value that corresponds to a comparison" is read on

"calculates relevance information", and see column 16, line 50 through column 17, line 8.)

<u>Robertson et al</u> does not teach: selecting semantic units from the generated multiword

substrings based on the calculated values [although <u>Robertson et al</u> teaches "semantic units"

as "a cluster of word numbers (see column 4, line 67 through column 5, line 5, and see

column 18, lines 19-22), where each word number represents (is converted from) a word in a document (see column 2, lines 64-67.)]

Emens et al teaches a method for rating hypermedia for objectionable content (see Abstract), in which he teaches selecting semantic units from the generated multiword substrings based on the calculated values (see column 5, lines 28-48, and see column 6, line 54 through column 7, line 5, where "calculated values" is read on "ratings".)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Robertson et al to include selecting semantic units from the generated multiword substrings based on the calculated values.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Robertson et al by the teachings of Emens et al, because including selecting semantic units from the generated multiword substrings based on the calculated values, would enable the user to rank semantic units based on their relevance with the queried documents, and only retrieve (or only avoid) the documents (search results) that have a higher relevance or occurrence with the selected semantic units. In Emens et al, this limitation is used to filter out objectionable or unwanted content from documents before they are displayed to the user (see column 6, lines 57-66.) Other advantages of this limitation are explained in the Objections and Advantages and Summary sections of Emens et a (see column 2, lines 22-58.)

As to claims 2 and 26, Robertson et al as modified, teaches wherein the identification of the documents further includes:

generating an initial list of relevant documents (see <u>Robertson et al</u>, column 4, lines 32-35); and

selecting a predetermined number of most relevant ones of the documents in the initial list as the identified documents (see <u>Robertson et al</u>, column 1, lines 45-61, see figure 1, and see column 8, lines 52-55.)

As to claims 3, 8, 15, 22, 27, and 32, <u>Robertson et al</u> as modified, teaches wherein the selection of the semantic units further includes:

selecting semantic units from the generated substrings that have calculated values above a predetermined threshold (see <u>Robertson et al</u>, column 5, lines 22-27, and see column 20, lines 44-67.)

As to claim 4, 9, 16, 23, 28, and 33, <u>Robertson et al</u> as modified teaches discarding the generated substrings that overlap other ones of the generated substrings with higher calculated values (see <u>Robertson et al</u>, column 19, line 19 through column 20, line 20, see column 21, lines 1-56.)

As to claims 5, 10, 17, 24, 29, and 34, <u>Robertson et al</u> as modified teaches wherein the calculated values are weighted based on a ranking defined by relevance of the identified documents, such that substrings that occur in more relevant ones of the identified documents are assigned higher calculated values than substrings that occur in less relevant ones of the documents (see <u>Robertson et al</u>, column 14, lines 33-45 and see column 15, lines 20-25.)

As to claim 6, <u>Robertson et al</u> teaches a method of locating documents in response to a

search query (see Abstract, and see column 18, lines 19-20, where a "search query" is read

on "search operation"), the method comprising:

receiving the search query from a user (see column 6, lines 51-54);

generating a list of relevant documents based on search terms of the query (see column

13, lines 22-35);

identifying a subset of documents that are most relevant ones of the documents in the list

of relevant documents (see column 14, lines 9-24);

generating a plurality of multiword substrings from the query (see column 4, line 63

through column 5, line 5, see column 8, lines 12-23) in which each of the substrings includes

at least two words (see column 2, lines 52-56 and see column 13, lines 15-21); and

calculating, for each of the generated substrings, a value related to one or more

documents in the subset of documents that contain the substrings (see column 14, lines 9-64,

where "calculating a value related to one or more documents" is read on "calculates

relevance information", and see column 16, line 50 through column 17, line 8.)

<u>Robertson et al</u> does not teach: selecting semantic units from the generated multiword

substrings based on the calculated values [although <u>Robertson et al</u> teaches "semantic units"

as "a cluster of word numbers (see column 4, line 67 through column 5, line 5, and see

column 18, lines 19-22), where each word number represents (is converted from) a word in a

document (see column 2, lines 64-67)]; and he does not teach refining the generated list of

relevant documents based on the selected semantic units.

Emens et al teaches a method for rating hypermedia for objectionable content (see Abstract), in which he teaches selecting semantic units from the generated multiword substrings based on the calculated values (see column 5, lines 28-48, and see column 6, line 54 through column 7, line 5, where "calculated values" is read on "ratings"); and refining the generated list of relevant documents based on the selected semantic units (see column 6, line 54 through column 7, line 25, and see column 8, lines 6-18.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Robertson et al to include selecting semantic units from the generated multiword substrings based on the calculated values; and refining the generated list of relevant documents based on the selected semantic units

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Robertson et al by the teachings of Emens et al, because including selecting semantic units from the generated multiword substrings based on the calculated values; and refining the generated list of relevant documents based on the selected semantic units, would enable the user to rank semantic units based on their relevance with the queried documents, and only retrieve (or only avoid) the documents (search results) that have a higher relevance or occurrence with the selected semantic units. In Emens et al, the limitation of "refining the generated list of relevant documents" is taught in filtering out objectionable or unwanted content from the documents identified in the first search, before they are displayed to the user (see column 6, lines 57-66.) Other advantages of this limitation are explained in the Objections and Advantages and Summary sections of Emens et a (see column 2, lines 22-58.)

As to claims 7 and 31, <u>Robertson et al</u> as modified, teaches wherein the identified subset

includes a predetermined number of the most relevant ones of the documents in the list of

relevant documents (see <u>Robertson et al</u>, column 7, lines 3-17, where "identified subset" is

read on "the set of documents that can be accessed through the search engine", and see

column 14, lines 33-45 and see column 15, lines 20-25.)

As to claim 11, <u>Robertson et al</u> teaches a system (see Abstract) comprising:

a server (see "file server" in column 7, lines 11-12) connected to a network (see

"Internet" in column 6, lines 47-51), the server receiving search queries from users via the

network (see column 6, lines 51-54), the server including:

at least one processor (see "processing a search" in column 6, lines 59-65); and

a memory operatively coupled to the processor (see column 7, lines 18-40), the memory

storing program instructions that when executed by the processor, cause the processor to:

For the remaining steps of this claim, the applicant is directed to the remarks and

discussions made in claim 1 above.

As to claim 12, <u>Robertson et al</u> as modified, teaches wherein the processor refines the

identified list of documents based on the selected semantic units (see <u>Emens et al</u>, column 6,

line 54 through column 7, line 25, and see column 8, lines 6-18.)

As to claims 13 and 20, <u>Robertson et al</u> as modified, teaches wherein the system

transmits the refined list of documents to the user (see <u>Robertson et al</u>, column 7, lines 61-63,

and see <u>Emens et al</u>, column 6, lines 64-66.)

As to claim 14, <u>Robertson et al</u> as modified, teaches wherein the network is the Internet

(see <u>Robertson et al</u> , column 6, lines 49-54 and see column 7, lines 8-12) and the corpus is a

collection of web documents (see <u>Robertson et al</u>, column 6, lines 49-56, and see column 7,

lines 8-12.)

As to claim 18, the applicant is directed to the remarks and discussions made in claims 1,

6, 11 and their respective dependent claims.

As to claim 19, <u>Robertson et al</u> as modified, teaches the server (see "file server" in

<u>Robertson et al</u>, column 7, lines 11-12) further including:

a search engine (see <u>Robertson et al</u>, column 7, lines 8-10) configured to refine the list of

documents based on the located semantic units (see <u>Emens et al</u>, column 6, line 54 through

column 7, line 25, and see column 8, lines 6-18.)

As to claim 21, applicants are kindly directed to the remarks and discussions made in

claims 1, 6, and 18 above.

As to claim 25, <u>Robertson et al</u> teaches a computer-readable medium storing instructions for causing at least one processor (see column 7, lines 18-31) to perform a method (for the remaining teachings of this claim, applicants are directed to the remarks and discussions made in claims 1 and 6 above.)

As to claim 30, applicant is directed to the remarks and discussions made in claims 1, 6, 11, 18, and 25 above.

As to claim 36, applicant is directed to the remarks and discussions made in claims 1, 6, 11, 18, 25, and 30 above.

As to claims 37, 38, 39, 40, and 41, <u>Robertson et al</u> as modified, teaches wherein the calculated values are weighted based on a ranking defined by relevance of the identified documents, such that an occurrence of a substrings in a more relevant one of the documents is weighted more than an occurrence of the substrings in a less relevant one of the documents (see <u>Robertson et al</u>, column 7, line 57 through column 8, line 10, see column 14, lines 9-64, and see column 15, lines 45-51.)

As to claim 35, <u>Robertson et al</u> as modified, teaches wherein the computer-readable medium is a CD-ROM, floppy disk, tape, flash memory, system memory, hard drive, or data signal embodied in a carrier wave (see "disk I/O" in <u>Robertson et al</u>, Abstract, and see column 7, lines 18-23.)

Response to Arguments

5. Applicant's arguments presented in the Appeal Brief, filed on 24-November-2004 with respect to the rejected claims in view of the cited references have been fully considered but they are moot in view of the new grounds of rejection.

Conclusion

6. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Tony Mahmoudi whose telephone number is (571) 272-4078. The examiner can normally be reached on Mondays-Fridays from 08:00 am to 04:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici, can be reached at (571) 272-4083.

tm

March 31, 2005

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